What is claimed is:

1. An atomizer for combining a precise mass of atomized liquid into a gas stream, comprising:

a base having a face thereon, the face having a mixing slot therein, the mixing slot comprising a throat, a gas inlet side, and a mixture outlet side, the throat being in fluid communication with the gas inlet side and the mixture outlet side, the gas inlet side having a smoothly decreasing cross-sectional area for introducing a gas stream to the throat and the mixture outlet side having a smoothly increasing cross-sectional area;

a liquid inlet in fluid communication with the throat of the mixing slot so that liquid entering the mixing slot through the liquid inlet is atomized and combined with the gas stream; and

a sealing member abutting the face of the base with the mixing slot therein for sealing the mixing slot.

2. The atomizer of claim 1 wherein the mixing slot is formed by machining.

3. The atomizer of claim 1 further comprising:

a valve proximate the throat for controlling the introduction of liquid into the gas stream.

4. An atomizer for combining separate gas and liquid streams, comprising:

a base member having a mixing slot formed therein; the mixing slot having a gas inlet side, a throat, and a mixture outlet side, the mixing slot for producing a venturi effect in the throat;

a liquid inlet in fluidic communication with the mixing slot for introducing the liquid stream into the mixing slot;

a gas stream inlet in fluidic communication with the gas input side of the mixing slot; and

a mixture outlet in fluidic communication with the mixture side of the mixing slot.

5. The atomizer of claim 4, wherein the liquid stream mixes with the gas stream at a mixing point located where the liquid inlet connects to the mixing slot.

6. The atomizer of claim 5, wherein the gas stream flowing into the mixing point is combined by venturi effect with the fluid stream to provide an atomized mixture of gas and liquid streams to the mixture outlet.

7. The atomizer of claim 4, wherein the gas input side is inwardly tapered to reduce the cross-sectional area of the mixing slot and the mixture output side is outwardly tapered to increase the cross-sectional area of the mixing slot.

8. The atomizer of claim 7, wherein the smallest cross-sectional area of the mixing slot is located at the mixing point.

9. The atomizer of claim 4 further comprising:

a valve proximate the mixing point for controlling the introduction of the liquid stream into the mixing slot.

10. An atomizer for combining separate gas and liquid streams, comprising:

a base member having a mixing slot formed therein for producing a venturi effect at a mixing point, the mixing slot having a gas input side and a mixture side;

a gas slot in fluidic communication with the base member, the gas slot having a gas inlet side and a gas outlet side, the gas outlet side of the gas slot being connected to the gas inlet side of the mixing slot;

a liquid inlet in fluidic communication with the mixing slot for introducing liquid into the mixing slot; and

a mixture outlet in fluidic communication with the mixture side of the mixing slot.

11. The atomizer of claim 10, wherein the mixing point is defined by the junction of the liquid inlet to the mixing slot.

12. The atomizer of claim 10, wherein the gas stream flowing through the gas slot into the mixing point is combined by venturi effect with the fluid stream to provide an atomized mixture of gas and liquid streams to the mixture outlet.

13. The atomizer of claim 10, wherein the mixing slot has an hourglass shape.

14. The atomizer of claim 13, wherein the mixing point is located at the throat of the hourglass.

15. The atomizer of claim 10 wherein the gas slot is a serpentine pathway for heating the gas stream to a predetermined temperature.

16. The atomizer of claim 10 further comprising:

a valve proximate the mixing point for controlling the introduction of the liquid stream into the mixing slot.

17. An atomizer for combining separate gas and liquid streams, comprising:

a base member having a mixing slot formed therein for producing a venturi effect at a mixing point, the mixing slot having a gas input side and a mixture side;

a gas slot in fluidic communication with the base member, the gas slot having a gas inlet side and a gas outlet side, the gas outlet side of the gas slot being connected to the gas inlet side of the mixing slot;

a liquid inlet in fluidic communication with the mixing slot at a mixing point ; and

a mixture heating slot in fluidic communication with the mixture side of the mixing slot, the mixture heating slot having a pathway inlet side and a pathway outlet, the mixture heating slot connected to the mixture side of the mixing slot, the gas stream flowing through the gas slot into the mixing point to be combined by venturi effect with the fluid stream to provide an atomized mixture of gas and liquid streams to the mixture heating slot and through the pathway outlet.

18. The atomizer of claim 17, wherein the mixing slot is an hourglass shape.

19. The atomizer of claim 18, wherein the mixing point is located at the throat of the hourglass.

20. The atomizer of claim 17 wherein the gas slot is a serpentine pathway for heating the gas stream to a predetermined temperature.